

I. AMENDMENTS

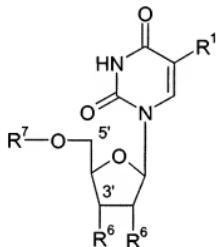
**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

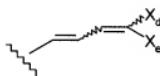
Claims 1 to 62. (Canceled).

Claim 63. (Currently Amended) A compound or a pharmaceutically acceptable salt of the compound, wherein the compound has the structure:



wherein:

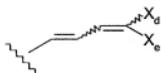
(i) R<sup>1</sup> is a group:



wherein X<sub>d</sub> is H; and, X<sub>e</sub> is Cl, I or Br;

or:

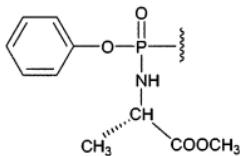
(ii)  $R^1$  is a group:



wherein  $X_d$  and  $X_e$  are independently the same or different and are selected from Cl, Br, and I;

and wherein each  $R^6$  is independently the same or different from the other and is selected from the group consisting of -H, and -OH, -OC(=O)CH<sub>3</sub>, or F;

$R^7$  is -H, a monophosphate or the structure:



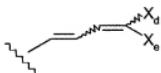
;

with the proviso that when  $R^7$  is H, then  $X_d$  is not H and  $X_e$  is not Br; and

wherein the compound may be in any enantiomeric, diastereomeric, or stereoisomeric form, including D-form, L-form,  $\alpha$ -anomeric form, and  $\beta$ -anomeric form.

Claim 64. (Previously Presented) A compound according to claim 63, wherein:

$R^1$  is a group:

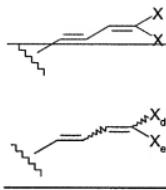


wherein  $X_d$  is H; and,  $X_e$  is Cl or Br.

Claims 65 to 67. (Canceled).

Claim 68. (Currently Amended) A compound according to claim 63, wherein:

$R^1$  is a group:



wherein  $X_d$  and  $X_e$  is Cl, I or Br.

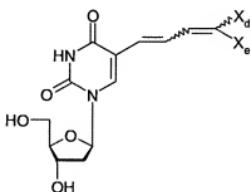
wherein each  $X$  is selected from Cl, Br, and I.

Claim 69. (Currently Amended) A compound according to claim 68, wherein  $X$   $X_d$  and  $X_e$  is Cl or Br.

Claim 70. (Currently Amended) A compound according to claim 68, wherein  $X_d$  and  $X_e$  are each  $X$  is Br.

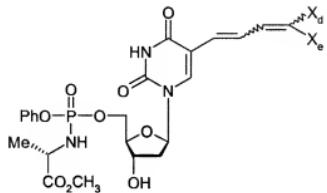
Claims 71 – 78 (Canceled).

Claim 79. (Currently Amended) A compound according to claim 63, having the structure:



wherein  $X_d$  is H; and,  $X_e$  is Cl or I or Br.

Claim 80. (Currently Amended) A compound according to claim 63, having the structure:

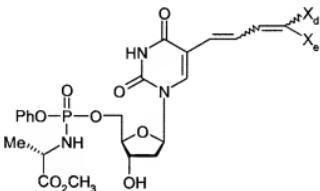


wherein  $X_d$  is H; and,  $X_e$  is Cl or I or Br.

Claim 81. (Canceled).

Claim 82. (Canceled).

Claim 83. (Previously Presented) A compound according to claim 63, having the structure:



wherein  $X_d$  and  $X_e$  are independently the same or different and are selected from Cl, Br, and I.

Claim 84. (Canceled)

Claim 85. (Currently Amended) A composition comprising a compound according to any one of claims 63, 64, 68-70, 79, 80 and 83 ~~claim 63~~ and a carrier.

Claim 86. (Currently Amended) A pharmaceutical composition comprising a compound according to any one of 63, 64, 68-70, 79, 80 and 83 ~~claim 63~~, and a pharmaceutically acceptable carrier.

Claim 87. (Currently Amended) A method for screening for a therapeutic agent, comprising:

- (a) contacting a sample containing a target cell with a compound according to any one of claim 63 claims 63, 64, 68-70, 79, 80 and 83;
- (b) contacting a separate sample of the target cell with a potential therapeutic agent; and
- (c) comparing the samples for inhibition of cellular proliferation or cell killing.

Claim 88. (Previously Presented) A method according to claim 87, wherein the target cell is characterized as resistant to a chemotherapeutic drug.

Claim 89. (Previously Presented) A method according to claim 87, wherein the target cell is characterized as expressing a target enzyme that is amplified as a result of selection *in vivo* by chemotherapy.

Claim 90. (Previously Presented) A method according to claim 87, wherein the target enzyme is an endogenous intracellular enzyme that is overexpressed in the target cell.

Claim 91. to 93. (Canceled).

Claim 94. (New) A method for inhibiting the growth of a cancer cell selected from the group consisting of colon cancer cell, a breast cancer cell, a gastric cancer cell, a head and neck cancer cell, a liver cancer cell, an ovarian cancer cell or a pancreatic cancer cell and wherein said cell overexpresses thymidylate synthase, comprising contacting

the cell with an effective amount of the compound of any of claims 63, 64, 68-70, 79, 80 and 83.

Claim 95. (New) The method of claim 94, wherein the cancer cell is a breast cancer cell, an ovarian cancer cell or a colon cancer cell.

Claim 96. (New) A method for treating a cancer in a subject, wherein the cancer is selected from the group consisting of colon cancer, breast cancer, gastric cancer, head and neck cancer, liver cancer, ovarian cancer and pancreatic cancer, comprising administering an effective amount of a compound of any of claims 63, 64, 68-70, 79, 80 and 83 to the subject.

Claim 97. (New) The method of claim 96, wherein the cancer is breast cancer, colon cancer or ovarian cancer.

Claim 98. (New) The method of claim 96, wherein the subject is a human patient.

Claim 99. (New) The method of claim 97, wherein the subject is a human patient.